REMARKS

The rejection of claim 12 under 35 USC §112, first paragraph, has been obviated by deleting the term "illegally recorded". With respect to the rejection of claims 26 and 27 under this section, Applicants would point to the paragraph bridging pages 2 and 3 of the specification for references to "false" and "genuine" control information, and line 16 of page 3 for a reference to "invalid key information". The rejection of claim 28 under this section has been obviated by changing "flag located at" with --signal indicative of--.

The rejection of claims 20 and 21 under 35 USC §112, second paragraph has been obviated by revising the ambiguous terminology into more specific terminology.

Finally, the rejection of claims 12-28 under 35 USC §103 has been obviated by revising claim 12 to more clearly distinguish the invention from the prior art of record. However, before the specific language of the amendment is discussed, a brief recap of the principal object and advantages of the invention will be given.

The object of the present invention is to prevent an encrypted data, when the encrypted data and an unauthorized key information item for decrypting the encrypted data are recorded in the primary recording region, from being decrypted by the unauthorized key information item for decrypting the encrypted data is recorded in the primary recording region an that the invalid key information item in the secondary recording region aims to inhibit the decryption of the encrypted data by the key information item which is illegally recorded in the primary recording region.

The recording apparatus of Lockoff comprises a control program and a microcomputer that is loaded with the control program, and performs a recording process controlled by the control program (col. 5, lines 6-27). However, the apparatus has a technical problem: if the control program is illegally rewritten, an unauthorized data may be recorded in the recording medium on which recording is essentially impossible. If this happens, the apparatus of Lockoff does not have any means to prevent the unauthorized data from being reproduced. Specifically, once an encrypted primary data and a key information item for decrypting the primary data are illegally recorded in the primary recording region, the

encrypted primary data may be freely reproduced by using the illegally recorded key information item. Such unauthorized usage of the data would violate copyright laws.

Contrary to the above, the present invention aims to prohibit the usage of the data that has been copied illegally on the recording medium. To achieve the aim, the present invention contains the following structure:

> "said system controller controls the location of said pickup by using shifting portion until said detecting portion detects that a track which said pickup reads is the second track; said pickup reads the primary control information including an invalid key information item in said secondary recording region, and main data is reproduced according to said read primary control information, and wherein said invalid key information item is a data signal for inhibiting decryption of encrypted data signal illegally recorded in said main data of the primary recording region with using corresponding key information item for decrypting said encrypted data signal recorded in said main data of the primary recording region."

With this structure, the present invention has gained the advantage that the reproduction of encrypted data can be prevented even if the encrypted data and the key information item for decrypting the encrypted data are illegally recorded in the primary recording region.

The invention in Timmermans relates to a playback apparatus, which, in order to play back, detects variations of physical characteristics formed on a record carrier (variations in a first physical parameter and variations in a second physical parameter). The variations in the first physical parameter can be explained as forms of optical detectable marks 3 in Fig. 1b that can alternate with intermediate areas 4. The variations in the second physical parameter can be explained as variations of the track position in a direction transverse to the tract direction (col. 4, lines 12-35).

To reproduce information on this record carrier, a band pass filter 80 receives the variations of the second physical parameter and the output of the filter 80 is supplied to a demodulation circuit 81 for recovering parameter and the output of the filter 80 is supplied to a demodulation circuit 81 for recovering the code represented by the variations in the second

physical parameter. If the code received by the demodulation circuit 81 corresponds with a predetermined code, an information recovery circuit 61 recovers the information by decrypting the code represented by the first physical parameter, using the code recovered by the demodulation circuit (col. 7, lines 1-16).

However, it is apparent from col. 4, lines 12-35, that the variations in the first physical parameter and the variations in the second physical parameter are recorded in the same recording region in the invention in Timmermans. Thus, this structure is absolutely different from the present invention.

Moreover, in the above structure, if information according to the variations in the first physical parameter and information according to the variations in the second physical parameter are once known in a recording medium in an unauthorized way, such information will be illegally recorded on the recording medium. Having been copied illegally, there is no way to stop reproducing the information.

The above two references disclose preventing the unauthorized recording on the recording medium (Lockoff) and preventing the unauthorized reproduction of an encrypted data unless the encryption is decrypted (Timmermans). However, both inventions cannot protect the data from the illegal recording or reproduction once the mechanism to prevent such recording or reproduction has been unveiled.

To solve the above problem, the present invention adopts the following structure recited in amended claim 12:

> "said system controller controls the location of said pickup by using shifting portion until said detecting portion detects that a track which said pickup reads is the second track, said pickup reads the primary control information including an invalid key information item in said secondary recording region, and main data is reproduced according to said read primary control information, and wherein said invalid key information item is a data signal for inhibiting decryption of encrypted data signal illegally recorded in said main data of the primary recording region with using corresponding a key information item for

decrypting said encrypted data signal recorded in said main data of the primary recording region."

This structure prevents the encrypted data from being decrypted by the key information item that is illegally recorded on the primary recording region even if the decrypted data and the key information have been recorded on the primary recording region in an authorized way. The references fail to disclose the present structure; therefore even the combination of the references discloses or suggest the prevent invention. Accordingly, amended claim 12 is patentable.

Claims 13-14 and 16-28 are patentable at lest by reason of their ultimate dependency on amended claim 12.

Finally, new claim 29 is patentable, albeit for different reasons than given for amended claim 12.

While the Lokhoff '219 patent does disclose, in column 6, lines 56-63, the concept of changing the frequency of a track undulation in conformity with a position information signal, it neither discloses nor suggests the more specific concept of a disk-shaped recording medium having a primary recording region and a secondary recording region with tracks which wobble at first and second different pitches, respectively, wherein the information in the secondary recording region contains primary control information, in combination with a system controller which first determines whether or not the track wobbles at the first pitch, and if so, shifts the pickup until the track wobbles at the second pitch, "whereupon said primary control information in said secondary recording region is first reproduced ..." Such an interaction between the disk-shaped recording medium and the system controller results in the advantage of the present invention, which prevents the pick up from using secondary control information recorded in the primary recording region to de-code an encrypted work in such a way as to likely violate the copyright laws.

The Timmermans '210 patent is likewise irrelevant to the invention defined in new claim 29. All the '210 patent teaches is the provision of a second variation in the data-carrying tack, such as a radial wobble, to provide enablement for the reproduction of

information on a record carrier. There is no disclosure or suggestion of a system comprising a disk-recording medium in combination with a reproducing apparatus wherein the reproducing apparatus first reproduces data on a secondary region of the disk-shaped recording medium in order to first reproduce primary control information, thereby preventing the system controller from using secondary control information recorded in the primary recording region in order to spuriously reproduce encrypted data recorded on the primary recording region.

For all these reasons, the invention defined in new claim 29 is patentable over the '219 and '210 patents, taken either singly, or in any tenable combination.

Now that all of the claims are believed to be patentable, the prompt issuance of a Notice of Allowance is hereby earnestly solicited.

The Commissioner is authorized to charge any overage or shortage of fees connected with filing of this Amendment to Deposit Account No. 19-2380.

Respectfully submitted,

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